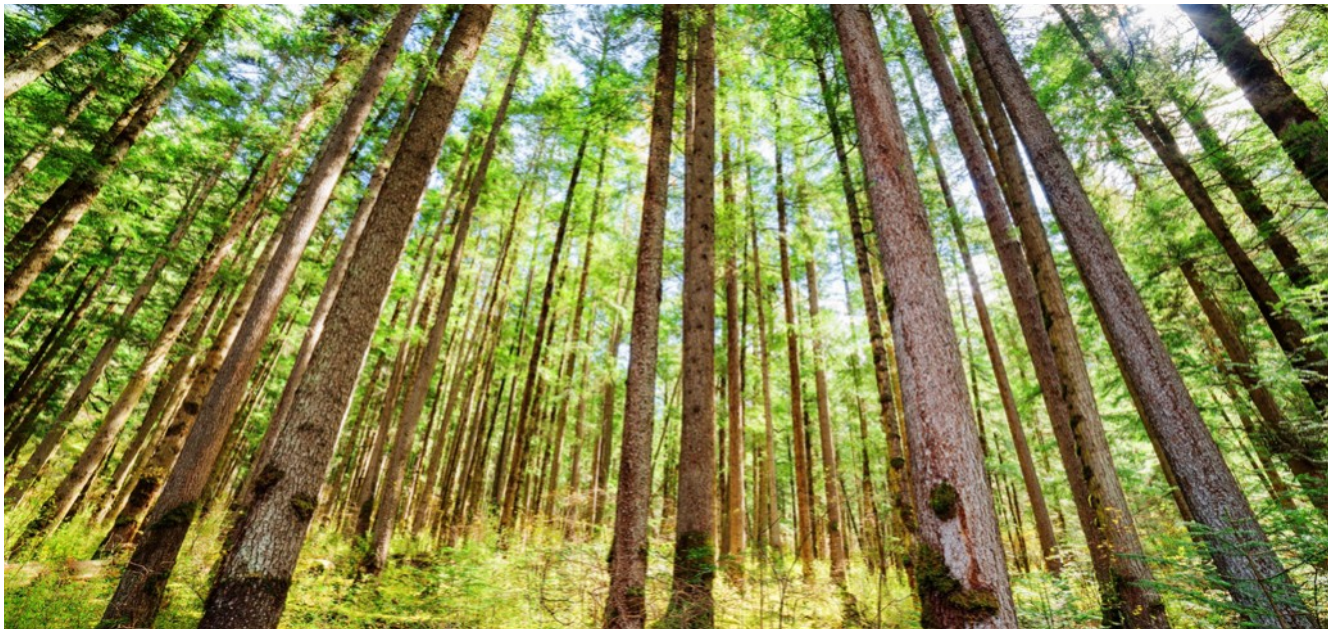
SULZER

Separation and purification solutions **for pulp mills and biorefineries**

Maximizing lignocellulose processes economics

Traditional lignocellulose conversion methods such as pulping, pretreatment, and steam explosion, break down this biomass and inevitably generate condensates, side and waste streams containing valuable chemicals.

Sulzer Chemtech offers industrially proven process solutions to recover these by products, transforming them into high-value biobased chemicals and biofuels, while also reclaiming water.



Through our unmatched expertise in separation technology, we successfully extract, fractionate, and ultimately purify value-added products from even the most challenging process streams.

Optimized solutions for maximum efficiency

Our comprehensive approach combines proven technologies:

OptimEXT™ – Integrated liquid-liquid extraction technology for efficient recovery of organics from aqueous streams – delivering high productivity and minimal energy consumption:
- Kühni agitated extraction column
- Packed column-type extractors

Mass Transfer technologies for high-purity separation:
- Distillation and fractionation
- Stripping
- Anti-fouling mass transfer components
- High-capacity structured packing

VoltaSplit™ – Electrified Distillation using MVR (mechanical vapor recompression) or heat pump for optimized energy usage:
- Lower CapEx and OpEx
- Reduced steam boiler size and cooling requirements
- High decarbonization potential

EvapCare™ – Tailored Evaporation solutions
- Falling film evaporator
- Wiped film evaporator
- Short path evaporator

BioFlux™ – Technology for renewable fuels production from tall oil:
- Converts tall oil fatty acids into premium renewable diesel or SAF
- Advanced hydrogen and heat management for reliable operation
- Lower CapEx and OpEx with modular, energy-efficient design

We integrate these solutions into customized process systems tailored to your specific requirements.

Experienced in product recovery from a wide range of feedstocks

- Sugar and starches
- Cellulosic
- Plant oils
- Flue gases
- Tall oil
- Aqueous waste streams
- Chemical waste streams

Separation and purification of:

- Methanol
- Acetic Acid
- Furfural
- 5-HMF
- Aromatics, (poly) phenols
- Glycol
- Glycerol
- Pinene
- Vanillin
- Organic acids and fatty acids
- Wastewater

Performance guaranteed

Sulzer's in-house pilot facilities test your actual feedstock before full-scale implementation, providing:
- Verified separation performance
- Process guarantees based on pilot plant trials with your process sample
- Reliable scale-up parameters

From key equipment packages to fully integrated modular plants, we deliver solutions with guaranteed performance.

How can we help you?
Contact us today to find your best solution.

solutions.sulzer.com